

IN THE CLAIMS:

Please amend claims 1, 3, 5-8, 10-12, 14-17, and 19-21 as follows.

1. (Currently Amended) An image forming apparatus that forms an electrostatic latent image on an image carrier, the image forming apparatus comprising:

- a charging unit for charging the image carrier;
- a charge voltage loading unit for applying a charge voltage to the charging unit;
- an exposure unit for exposing the image carrier charged by the charging unit to form an electrostatic latent image corresponding to image signals;
- a development unit for forming a toner image by developing the electrostatic latent image formed on the image carrier ~~by the image carrier~~;
- an image transfer unit for continuously transferring the toner image formed by the development unit onto a plurality of recording materials; and
- a control unit for controlling ~~an ac~~ AC charge voltage applied by the charge voltage loading unit to the charging unit,

wherein, when the transport interval of the plural recording materials is shorter than a predetermined time, the AC charge voltage applied to the image carrier during the transport interval ~~being~~ is a first AC charge voltage, and when the transport interval is longer than the predetermined time, the ~~ac~~ AC charge voltage applied to the image carrier during the transport interval ~~being~~ is a second AC charge voltage, and

wherein the control unit makes the current running in the charging unit ~~to~~ which when the second AC charge voltage is applied lower than the current running in the charging unit ~~to which~~ when the first AC charge voltage is applied.

2. (Original) The image forming apparatus according to claim 1, further comprising a current detection unit for detecting current running in the charging unit, wherein the control unit controls the AC charge voltage applied by the charge loading unit so that the current detected by said current detection unit is equal to a predetermined current value.

3. (Currently Amended) The image forming apparatus according to claim 2, wherein the first AC charge voltage applied by the charge voltage loading unit is such a voltage ~~that the charge voltage loading unit applies so~~ that the predetermined current value becomes equal to a first predetermined current value, ~~while~~ and the second AC charge voltage ~~applied by is such a voltage that the charge voltage loading unit applies so~~ is such a voltage that the predetermined current value becomes equal to a second predetermined current value that is lower than the first predetermined current value.

4. (Original) The image forming apparatus according to claim 3, wherein said predetermined time is the sum of the time for the first predetermined current value to step down to the second predetermined current value and the time for the second predetermined current value to step up to the first predetermined current value.

5. (Currently Amended) The image forming apparatus according to claim 1, wherein the charge voltage loading unit applies a charge voltage ~~where~~ including a DC charge voltage ~~[[is]]~~ added to the AC charge voltage so that the image carrier is charged to a predetermined potential.

6. (Currently Amended) The image forming apparatus according to claim 5, wherein the ~~development~~ charging unit applies a predetermined voltage to ~~the~~ a non-image formation area of the image carrier.

7. (Currently Amended) The image forming apparatus according to claim 6, wherein the control unit controls the second ~~ac~~ AC charge voltage so that the predetermined potential becomes higher than the predetermined voltage.

8. (Currently Amended) An image forming apparatus that forms an electrostatic latent image on an image carrier, the image forming apparatus comprising:

a charging unit for charging the image carrier;

a charge voltage loading unit for applying charge voltage to the charging unit;

an exposure unit for exposing the image carrier charged by the charging unit and ~~forms~~ forming an electrostatic latent image corresponding to image signals;

a development unit for forming a toner image by developing the electrostatic latent image formed on the image ~~carrier by the image~~ carrier;

an image transfer unit for continuously transferring the toner image formed by the development unit onto a plurality of recording materials;

a fixer unit for fixing the toner image transferred by the image transfer unit to the recording ~~material~~ materials;

a transport unit for transporting the recording ~~material~~ materials to the image transfer unit to transfer a toner image onto the other side of the recording ~~material~~ materials where a toner image has been fixed by the fixer unit; and

a control unit for controlling ~~an~~ ac AC charge voltage applied by the charge voltage loading unit to the charging unit,

wherein, while the transport unit is not transporting the recording ~~material~~ materials the AC charge voltage ~~being is~~ is a first AC charge voltage, and while the transport unit is transporting the recording ~~material~~ materials the AC charge voltage ~~being is~~ is a second AC charge voltage, and

wherein the control unit makes the current running in the charging unit ~~to~~ which when the second AC charge voltage is applied lower than the current running in the charging unit ~~to~~ which when the first AC charge voltage is applied.

9. (Original) The image forming apparatus according to claim 8, further comprising a current detection unit for detecting current running in the charging unit, wherein the control unit controls the AC charge voltage applied by the charge loading unit so that the current detected by said current detection unit is equal to a predetermined current value.

10. (Currently Amended) The image forming apparatus according to claim 9, wherein the first AC charge voltage applied by the leading unit charge voltage is such a voltage ~~that the charge voltage loading unit applies~~ so that the predetermined current value becomes equal to a first predetermined current value, while the second AC charge voltage applied by the charge voltage loading unit is such a voltage ~~that the charge voltage loading unit applies~~ so that the predetermined current value becomes equal to a second predetermined current value that is lower than the first predetermined current value.

11. (Currently Amended) The image forming apparatus according to claim 8, wherein the charge voltage loading unit applies a charge voltage ~~where~~ including a DC charge voltage ~~[[is]]~~ added to the AC charge voltage so that the image carrier is charged to a predetermined potential.

12. (Currently Amended) The image forming apparatus according to claim 11, wherein the ~~development~~ charging unit applies a predetermined voltage to ~~the~~ a non-image formation area of the image carrier.

13. (Original) The image forming apparatus according to claim 12, wherein the control unit controls the second AC charge voltage so that the predetermined potential becomes higher than the predetermined voltage.

14. (Currently Amended) An image forming apparatus that forms an electrostatic latent image on an image carrier, the image forming apparatus comprising:

a charging unit for charging the image carrier;

a charge voltage loading unit for applying charge voltage to the charging unit;

an exposure unit for exposing the image carrier charged by the charging unit and ~~forms~~ forming an electrostatic latent image corresponding to image signals;

a development unit for forming a toner image by developing the electrostatic latent image formed on the image carrier ~~by the image carrier~~;

an image transfer unit for continuously transferring the toner image formed by the development unit onto a plurality of recording materials;

a fixer unit for fixing the toner image transferred by the image transfer unit to the recording ~~material~~ materials;

a feeder unit for feeding the recording ~~material~~ materials from a recording material container where ~~a~~ the plurality of recording materials are loaded;

a transport unit for transporting the recording material materials to the image transfer unit to transfer a toner image onto the other side of the recording ~~material~~ materials where a toner image has been fixed by the fixer unit;

a control unit for controlling ~~at~~ AC charge voltage applied by the charge voltage loading unit to the charging unit; and

a memory unit for storing the image formation conditions about the plural recording materials based on the command sent from an external device,

wherein, while the transport unit is not transporting the recording ~~material~~ materials, the AC charge voltage ~~being is~~ is a first AC charge voltage, ~~and~~

wherein, while the transport unit is transporting one of the recording ~~material~~ materials and the feeder unit is feeding ~~the a~~ a recording material subsequent to ~~said~~ the one of the recording ~~material~~ materials based on the image formation conditions stored in the memory unit, the AC charge voltage ~~being is~~ is a second AC charge voltage, and

wherein the control unit makes the current running in the charging unit ~~to~~ which when the second charge voltage is applied lower than the current running in the charging unit ~~to which when~~ when the first AC charge voltage is applied.

15. (Currently Amended) The image forming apparatus according to claim 14, wherein the control unit does not apply the AC charge voltage when the transport unit is transporting the one of the recording ~~material~~ materials and the memory unit does not have any image formation conditions about the recording material subsequent to the one of ~~the said~~ recording ~~material~~ materials.

16. (Currently Amended) The image forming apparatus according to claim 15, further comprising a driver unit for driving the image carrier and the feeder unit so that ~~paper feeding by the feeder unit proceeds~~ feeds paper concurrently with the rotation of the image carrier.

17. (Currently Amended) The image forming apparatus according to claim 16, wherein the driver unit does not rotate the image carrier when the transport unit is transporting the one of the recording material materials and the memory unit does not have any image formation conditions about the recording material subsequent to ~~said recording material~~ the one of the recording materials.

18. (Original) The image forming apparatus according to claim 14, further comprising a current detection unit for detecting current running in the charging unit, wherein the control unit controls the AC charge voltage applied by the charge voltage loading unit so that the current detected by said current detection unit is equal to a predetermined current value.

19. (Currently Amended) The image forming apparatus according to claim 18, wherein the first AC charge voltage applied by the charge voltage loading unit is such a voltage ~~that the charge voltage loading unit applies~~ so that the predetermined current value becomes equal to a first predetermined current value, while the second AC charge voltage applied by the charge voltage loading unit is such a voltage ~~that the charge voltage loading unit applies~~ so that the predetermined current value becomes equal to a second predetermined current value that is lower than the first predetermined current value.

20. (Currently Amended) The image forming apparatus according to claim 14, wherein the charge voltage loading unit applies a charge voltage ~~where~~ including a DC charge voltage ~~[[is]]~~ added to the AC charge voltage so that the image carrier is charged to a predetermined potential.

21. (Currently Amended) The image forming apparatus according to claim 20, wherein the ~~development~~ charging unit applies a predetermined voltage to ~~the~~ a non-image formation area of the image carrier.

22. (Original) The image forming apparatus according to claim 21, wherein the control unit controls the second AC charge voltage so that the predetermined potential becomes higher than the predetermined voltage.